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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)
Office Action Summary		10/529,195	AALTO ET AL.
		Examiner	Art Unit
		ABDELNABI O. MUSA	2446

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2010*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,18,19,21,26,28,33-38,44-47,51 and 52* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,18,19,21,26,28,33-38,44-47,51 and 52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   In view of the Appeal filed on 04/14/2010, PROSECUTION IS HEREBY REOPENED. A New Ground of Rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or, (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid. A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Remarks

2.   The claims are presented as follows:

-     Claims 4-17, 20, 22-25, 27, 29-32, 39-43, 48-50 canceled.

-     Claims 1-3, 18-19, 21, 26, 28, 33-38, 44-47, 51-52 pending.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented
and the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 18-19, 21, 26, 28, 33-38, 44-47, 51-52 rejected under 35 U.S.C. 103(a)

as being unpatentable over Agarwal Patent. No (US. 6,963,570) in view of Johansson

et al. Pub. No. (US 2002/0026620 A1).

As per **claim 1** Agarwal teaches a method comprising:

receiving a data packet at an input (input interface 1301 FIG.4) interface

(receiving data at an input interface col.7, line 36-59), said data packet comprising a

header section (header portion 1230 FIG.3) and a pay-load section (payload portion

1240 FIG.3) (data routed contains header section and payload section col.1, line 43-52;

FIG.3), said header section comprising a compressed header section (header portion

1330 FIG.4) containing coded information including routing information (compressed

header portion contains coded and routing information col.1, line 43-52; col.7, line 42-

49; col.8, line 48-61);

decompressing (decompressing 1730 FIG.7) said routing information from said

compressed header section (decompressing header portion col.1, line 15-28; FIG.8B);

including at least a part of said decompressed routing information into said data packet

(data packet contains routing information col.1, line 43-52);

 routing said data packet to an output interface (routing data packet to an output

interface col.8, line 3-12; FIG.4); and

forwarding said data packet to said output interface (an output interface

continually receives data packets col.8, line 56-62), wherein said routing comprises

ascertaining said routing information from said compressed header section (compressed header portion contains routing information col.1, line 43-52; col.12, line 9-25; FIG.6B).

Agarwal does not explicitly teach wherein said coded information is left unchanged by said routing and forwarding data packet to said output interface

However, Johansson teaches a system and method for routing information in a header compression and decompression applications (see Abstract) The system recognizes some header information will not change during a given packet flow or routing and forwarding to an output interface, examples of such unchanging (also referred to as stationary or static) header information include IP source and destination addresses. This unchanging header information will contribute an unchanging component to the checksums calculated in connection with the headers of the packet flow ([0009] [0023] [0026] FIG.4) in order to provide optimal efficiency and greater bandwidth in routing and forwarding such data packets ([0009] [0023] [0026] FIG.4)

It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified Agarwal by the teaching of Johansson to leave the coded information unchanged by said routing and forwarding data packet to said output interface in order to provide optimal efficiency and greater bandwidth in routing and forwarding such data packets ([0009] [0023] [0026] FIG.4).

As per **claim 2** Agarwal teaches a method according to claim 1, wherein said ascertaining comprises reading a first header compression context identifier from said

compressed header section (reading header identifiers from compressed header portion col.9, line 2-10; col.11, line 33-41; FIG.5B).

As per **claim 3** Agarwal teaches a method according to claim 1, wherein said routing comprises assigning a second header compression context identifier to said data packet and replacing said first header compression context identifier by said second header compression context identifier in said data packet (replacing the header compression identifier with other identifiers when transmitting the data packet over the communication link col.4, line 61-65; col.7, line 46-54; FIGs.5).

As per **claim 18** Agarwal teaches a method according to claim 1, wherein said part of said decompressed header is attached to said data packet in front of said header section (decompressed header is combined with data packet at the combiner 1730 FIG.7), such that said part of said decompressed header can be forwarded before said header section (sending combined decompressed header and payload 1804 col.13, line 13-19 FIG.8B).

As per **claim 19** Agarwal teaches a method according to claim 1, comprising removing at least a part of said decompressed header from said data packet (replacing decompressed headers with others in data packets col.5, line 1-4; FIG.7).

As per **claim 21** Agarwal teaches a method according to claim 2, comprising classifying said data packet according to a service class (decompressing coded information from compressed header portion into individual cells that were transmitted in frames i.e. classification codes col.12, line 37-60; FIG.7)

As per **claim 26** Agarwal teaches a method accord to claim 21, wherein said forwarding comprises placing said data packet into one of a plurality of queues, the chosen queue corresponding to a value of said classification code point (classifying data packet into a plurality of queues col.12, line 18-25; FIG.6B).

As per **claim 28** Agarwal teaches a method according to claim 1, wherein said forwarding comprises radio or microwave transmission of said data packet (ATM transmission is done through radio link system col.3, line 65).

As per **claim 33** Agarwal teaches an apparatus, comprising an input interface (input interface 1301 FIG.4) configured to receive at least one data packet containing compressed data (receiving data at an input interface col.7, line 36-59), a decompressor (header decompressor 1730 FIG.7) configured to communicate with said input interface and to decompress said compressed data such that decompressed data are created based on said compressed data (decompressing header portion col.1, line 15-28; FIG.8B), and an output interface configured to communicate with said decompressor and to provide said decompressed data of said data packet (output interface continually receives data packets col.8, line 56-62), wherein said decompressor is configured to selectively decompress only compressed header data contained in a header section of said data packet (output interface continuously receives data packets col.8, line 56-62), wherein the decompressor is configured to decompress said routing information from said compressed header information (data packet contains routing information col.1, line 43-52).

Agarwal does not explicitly teach wherein said coded information is left unchanged by said routing and forwarding data packet to said output interface

However, Johansson teaches a system and method for routing information in a header compression and decompression applications (see Abstract) The system recognizes some header information will not change during a given packet flow or routing and forwarding to an output interface, examples of such unchanging (also referred to as stationary or static) header information include IP source and destination addresses. This unchanging header information will contribute an unchanging component to the checksums calculated in connection with the headers of the packet flow ([0009] [0023] [0026] FIG.4) in order to provide optimal efficiency and greater bandwidth in routing and forwarding such data packets ([0009] [0023] [0026] FIG.4)

It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified Agarwal by the teaching of Johansson to leave the coded information unchanged by said routing and forwarding data packet to said output interface in order to provide optimal efficiency and greater bandwidth in routing and forwarding such data packets ([0009] [0023] [0026] FIG.4).

As per **claim 34** Agarwal teaches an apparatus according to claim 33, wherein said decompressor (header decompressor 1730 FIG.7) is configured to access to a header compression context table (header compression look up table col.4, line 66-col.5, line 4; FIG.6A) and is adapted to decompress said compressed data using at least one of data contained in at least one predetermined section of said header compression context table (decompressing data based on entries contained in the

compression table col.7, line 12-18; FIG.8A), at least one predetermined mathematical decompression rule (using a decompression algorithm at the receiver col.4, line 61- col.5, line 4; FIG.8B).

As per **claim 35** Agarwal teaches an apparatus according to claim 33, wherein said decompressor is adapted to decompress from said compressed header section an identifier of an external network node that is the destination of said data packet (replacing the header compression identifier with other identifiers when transmitting the data packet over the communication link col.4, line 61-65; col.7, line 46-54; FIGs.5).

As per **claim 36** Agarwal teaches an apparatus according to claim 35, wherein said decompressor is adapted to decompress only said identifier of said network node that is the destination of said data packet (replacing decompressed header with other identifier in data packets col.5, line 1-4; FIG.7).

As per **claim 37** Agarwal teaches an apparatus according to claim 33, wherein said decompressor is adapted to decompress said complete compressed header section of said data packet (replacing decompressed headers with others in data packets col.5, line 1-4; FIG.7).

As per **claim 38** Agarwal teaches an apparatus according to claim 33, wherein said decompressor is adapted to decompress a service classification code element from said compressed header section (decompressing coded information from compressed header portion into individual cells that were transmitted in frames i.e. classification codes col.12, line 37-60; FIG.7)

Claims 44-47 related to the same limitation set for hereinabove, where the difference used is the phrase '"apparatus" in claims whereas the wordings of the claims were interchanged within the claim itself and some of the claims were presented as a combination of two or more previously presented claims. This change does *NOT* effect the limitation of the above treated claims. Adding these phrases to the claims and interchanging the wording *DID NOT* introduce new limitations to these claims, the citations from the prior art have been inserted as needed. Refer to the cited prior art for more details and further mapping. Therefore these claims were rejected for similar reasons as stated above.

As per **claim 51** Agarwal teaches an apparatus according to claim 33, wherein the apparatus comprises a decompressor device (decompressor device 2600 FIG.11A).

As per **claim 52** Agarwal teaches an apparatus according to claim 44, wherein the apparatus comprises a router device (router device 70, 80 FIG.2A).

Response to Arguments

4.   Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5.   When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelnabi O. Musa whose telephone number is 571-2701901. The examiner can normally be reached on Monday thru Friday: 7:30am to 5:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Pwu can be reached on 571-2726798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. O. M./
Examiner, Art Unit 2446

/Joseph E. Avellino/
Supervisory Patent Examiner, Art Unit 2458